

Patent Claims

1. Method for speech recognition, whereby
 - a) words and pauses in the speech are determined on the basis of word boundaries;
 - b) an average silence volume (S_i level) during the pauses is determined;
 - c) an average word volume (W_o level) for the words is determined;
 - d) a difference (Δ) is determined between the average word volume (W_o level) and the average silence volume (S_i level);
 - e) whereby speech is recognized when the difference (Δ) between the average word volume (W_o level) and the average silence volume (S_i level) is greater than a predetermined threshold (S);
 - f) otherwise, no recognition of the speech is implemented.
2. Method according to claim 1, whereby the average silence volume and the average word volume is measured as logarithm via the acquired energy.
3. Method according to claim 1 or 2, whereby the global difference between the average word volume of a plurality of segmented words and the average silence volume of a plurality of segmented pauses is calculated, and the threshold is defined on the basis of the global difference.
4. Method according to claim 3, whereby the threshold is equated with the global difference.
5. Method according to claim 3, whereby the global difference is diminished by a predetermined, constant amount and the volume amount deriving therefrom is employed as threshold.
6. Method according to claim 1 or 2, whereby a constant threshold is employed.
7. Method according to one of the claims 1 through 6, whereby a word for which no speech recognition is implemented is not taken into further consideration.
8. Method according to one of the claims 1 through 7, whereby a message is output to a user when no speech recognition is implemented.
9. Method according to claim 8, whereby the user is prompted with the message to speak louder and/or to repeat the incorrectly recognized word.

10. Method according to claim 9, whereby the user is prompted with the message to speak louder, so that an adequate distance is achieved between the average word volume and the average silence volume.

11. Method according to one of the preceding claims, whereby the average
5 silence volume is respectively determined for an individual pause and the difference (Δ) is determined between the average word volume (W_o level) of the spoken word and the average silence volume (S_i level) of the immediately preceding pause or the immediately following pause

12. Method according to one of the preceding claims, whereby the average
10 silence volume is average over a plurality of successive pauses and this averaged silence volume is employed in the determination of the difference (Δ).

13. Method according to one of the preceding claims, whereby an n-best
list is prepared and a difference (Δ) between the average word volume (W_o level) of
15 the individual spoken words and the average silence volume (S_i level) is allocated to each word of the n-best list, and the word to be inserted into the text from the n-best list is determined according to the criterion of this difference (Δ) between the average word volume (W_o level) of the individual spoken words and the average silence volume (S_i level).

14. Arrangement for speech recognition, comprising a processor unit that
20 is configured such that

- a) words and pauses in the speech are determined on the basis of word boundaries;
- b) an average silence volume (S_i level) during the pauses is determined;
- c) an average word volume (W_o level) for the words is determined;
- 25 d) a difference (Δ) is determined between the average word volume (W_o level) and the average silence volume (S_i level);
- e) speech is recognized when the difference (Δ) between the average word volume (W_o level) and the average silence volume (S_i level) is greater than a predetermined threshold (S);
- 30 f) otherwise, no recognition of the speech is implemented.